

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (original) A packet relay device comprising: a join request unit operable to transmit a join request to join a multicast group in response to receiving a join instruction to join the multicast group, the join instruction transmitted by a mobile node at least before the mobile node moves between subnetworks; and

a packet forwarding unit operable to forward subsequently received multicast packets for the multicast group for a specified time period to a care-of address in response to receiving location registration information containing the care-of address of the mobile node in a foreign subnetwork to which the mobile node has moved, the location registration information transmitted when the mobile node has moved between subnetworks.

2. (original) The packet relay device according to claim 1, wherein the packet forwarding means is further operable to stop forwarding of the multicast packets in response to receiving a forwarding stop instruction transmitted by the mobile node.

3. (original) The packet relay device according to claim 1, wherein the packet forwarding means is further operable to determine a forwarding time period for the multicast packets based on time period designation information in response to receiving the time period designation information indicating a specified time period, the time period designation information transmitted by the mobile node.

4. (original) A mobile node comprising: a join instruction unit operable to transmit join instructions to join a multicast group to a location registrar relay device, the location registrar relay device being the recipient of location registration information containing one's own care-of address, at least before the mobile node moves between subnetworks, and

a forwarding request unit operable to transmit a forwarding request to the location registrar relay device, in response to the mobile node moving between subnetworks while participating in the multicast group, whereby multicast packets for the multicast group are subsequently received by the location registrar relay device to be forwarded for a time period to a care-of address of the mobile node after the move.

5. (original) The mobile node according to claim 4, wherein the join instruction unit is further operable to:

transmit a join request to join the multicast group to a relay device in a subnetwork to which the mobile node is attached when the mobile node newly joins a multicast group; and

transmit a join instruction to join the multicast group to the location registrar relay device.

6. (original) The mobile node according to claim 4, further comprising a forwarding stop instruction unit operable to transmit to the location registrar relay device a forwarding stop instruction to stop forwarding of multicast packets by the location registrar relay

device once multicast packets are received from a multicast group based on a join request after transmitting the join request to join the multicast group.

7. (original) A mobile node according to claim 4, further comprising a time period designation operable to transmit information indicating a specified period of time as the time period to the location registrar relay device when a subnetwork to which the mobile node has moved has a multicast packet delivery function; and

transmit information indicating that forwarding should be continued as the time period to the location registrar relay device when the subnetwork to which the mobile node has moved has no multicast packet delivery function.

8. (currently amended) A packet forwarding method comprising the steps of:

notifying a home agent for a mobile node that receives multicast packets whether a foreign subnetwork to which the mobile node has moved is a multicast protocol compatible subnetwork;

encapsulating and forwarding, at the home agent, the multicast packets to a care-of address of the mobile node for a specified limited time period if, based on content of the notification, the foreign subnetwork to which the mobile node has moved is a multicast protocol compatible subnetwork; and

~~continuing to encapsulate and forward~~ encapsulating and forwarding, at the home agent, the multicast packets to the care-of address regardless of the specified time period if the foreign subnetwork is not a multicast protocol compatible subnetwork.

9. (original) The packet forwarding method according to claim 8, further comprising the step of:

including information indicating whether the foreign subnetwork is multicast protocol compatible in a location registration message.

10. (original) The packet forwarding method according to claim 8, further comprising the step of:

statically determining, at the home agent, the time period for performing encapsulated forwarding.

11. (original) The packet forwarding method according to claim 8, further comprising the step of:

indicating to the home agent, from the mobile node, that the time period that the home agent forwards multicast packets to the mobile node.

12. (currently amended) A packet forwarding method comprising the steps of:

notifying a relay device to which a mobile node that receives multicast packets was connected in a subnetwork that the mobile node is moving from as to whether a foreign subnetwork to which the mobile node is moving is a multicast protocol compatible subnetwork;

encapsulating and forwarding, at the relay device, the multicast packets for a specified limited time period to a care-of address of the mobile node in the foreign network to which the mobile node has moved if, based on content of the notification, the

foreign subnetwork to which the mobile node has moved is a multicast protocol compatible subnetwork; and

~~continuing to encapsulate and forward~~ encapsulating and forwarding, at the relay device, the multicast packets to the care-of address regardless of the specified time period if the foreign subnetwork to which the mobile node has moved is not a multicast protocol compatible subnetwork.

13. (original) The packet forwarding method according to claim 12, further comprising the step of:

including information indicating whether the foreign subnetwork is multicast protocol compatible in a location registration message.

14. (currently amended) A home agent comprising:

a binding cache operable to manage foreign locations of mobile nodes to be managed;

a multicast packet forwarding processing unit operable to forward multicast packets; and

a packet processing unit operable to perform encapsulated forwarding of multicast packets for a ~~specific~~ specified time period ~~depending on whether~~ when multicast packets can be received at a foreign location of a mobile node~~[[.]]~~ and to perform encapsulated forwarding of multicast packets for a for a time regardless of the specified time period when multicast packets cannot be received at a foreign location of a mobile node.